NC/QC/YD/2020-21/YSD-4P-C1 Date: 01-06-2020

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	156 min	Shall not be less than 30 min
2	Final setting time	260min	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	2.16%	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	2.03mm	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	28.72 N/Sq mm	Shall not be less than 27 N/Sqmm

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NC/QC/YD/2020-21/YSD-4P-PCC1 Date: 01-06-2020

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	65.25	0 -20	30- 70
10mm	30.40	0 -5	10- 35
4.75mm	4.05	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	98.70	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	86.25	60-95	75-100	85-100	
01.18	73.05	30-70	55-90	75-100	
600.mic	46.45	15-34	35-59	60-79	
300.mic	24.15	5-20	8-30	12-40	
150.mic	7.80	0-10	0-10	0-10	

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MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,

NC/QC/YD/2020-21/YSD-4P-PCC2

Date: 03-06-2020

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	65.25	0 -20	30- 70
10mm	30.40	0 -5	10- 35
4.75mm	4.05	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	98.70	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	86.25	60-95	75-100	85-100	
01.18	73.05	30-70	55-90	75-100	
600.mic	46.45	15-34	35-59	60-79	
300.mic	24.15	5-20	8-30	12-40	
150.mic	7.80	0-10	0-10	0-10	

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ಬೆಂಗಳೂರು-106

C/QC/YD/2020-21/YSD-4P-S1 Date: 04-06-2020

TEST REPORT ON REINFORCEMENT STEEL:

ub: Testing of Reinforcement Steel of diameter 10 mm **TMT Steel.**
roject*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}
ef.: Material testing/PMC/20-21,
eport Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
ame of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

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		For 10 mm	
	Details	**Test Results**	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**10.0 mm**	10.0 mm
02	Observed Wt/m Length **Kg/m**	**0.621**	0.567
03	Proof stress/Yield stress, fy , **N/mm²**	**560.0**	500.0
04	Bend/ Re bend Test	**Ok**	---
05	Percentage of Elongation, %	**19.60**	16.00
06	Ultimate Tensile Strength **N/mm²**	**639.0**	565.0

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:/QC/YD/2020-21/YSD-4P-CB2 Date: 17-06-2020

TEST REPORT ON CEMENT CONCRETE CUBES:

ıb: Testing of Concrete Cubes (for 07days Compressive Strength).

roject*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}

:f.: Material testing/PMC/20-21,

:port Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

ame of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

'ABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	10-06-20	17-06-20	07	22500	380	16.89	16.81
	002	"	"	"	"	370	16.44	
	003	"	"	"	"	385	17.11	

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C/YD/2020-21/YSD-4P-CB3 Date: 18-06-2020

EST REPORT ON CEMENT CONCRETE CUBES:

Testing of Concrete Cubes (for 07days Compressive Strength).

ect*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}

Material testing/PMC/20-21,

rt Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

e of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

mensions of Specimen : 150 X 150 X 150mm

rade of Concrete* : M_{20}

BLE 1.1:

Location/ dentification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
001	11-06-20	18-06-20	07	22500	360	16.00	16.07
002	"	"	"	"	355	15.78	
003	"	"	"	"	370	16.44	

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NEW TECHNOLOGIES TO INNOVATE

QC/YD/2020-21/YSD-4P-CB6 **Date: 23-06-2020**

TEST REPORT ON CEMENT CONCRETE CUBES:

: Testing of Concrete Cubes (for 07days Compressive Strength).
ject*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}
: Material testing/PMC/20-21,
port Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
me of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

ABLE 1.1:

l o	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
	001	16-06-20	23-06-20	07	22500	385	17.11	16.59
l	002	"	"	"	"	370	16.44	
	003	"	"	"	"	365	16.22	

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QC/YD/2020-21/YSD-4P-CB8

Date: 26-06-2020

TEST REPORT ON CEMENT CONCRETE CUBES:

): Testing of Concrete Cubes (for 07days Compressive Strength).
bject*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}
.: Material testing/PMC/20-21,
ort Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
ne of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

ABLE 1.1:

l o	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
	001	19-06-20	26-06-20	07	22500	365	16.22	16.30
	002	"	"	"	"	360	16.00	
	003	"	"	"	"	375	16.67	

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'QC/YD/2020-21/YSD-4P-CB9

Date: 27-06-2020

TEST REPORT ON CEMENT CONCRETE CUBES:

b: Testing of Concrete Cubes (for 07days Compressive Strength).
oject*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}
f.: Material testing/PMC/20-21,
port Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
ıme of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

'ABLE 1.1:

SI No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	20-06-20	27-06-20	07	22500	360	16.00	16.07
	002	"	"	"	"	355	15.78	
	003	"	"	"	"	370	16.44	

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C/YD/2020-21/YSD-4P-CB8A

Date: 06-07-2020

EST REPORT ON CEMENT CONCRETE CUBES:

Testing of Concrete Cubes (for 28days Compressive Strength).
ect*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}
Material testing/PMC/20-21,
rt Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
: of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

mensions of Specimen : 150 X 150 X 150mm

rade of Concrete* : M_{20}

LE 1.1:

Location/ dentification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
001	19-06-20	17-07-20	28	22500	520	23.11	**22.74**
002	"	"	"	"	510	22.67	
003	"	"	"	"	505	22.44	

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NEW TECHNOLOGIES TO INNOVATE

NC/QC/YD/2020-21/YSD-4P-K1

Date: 03-07-2020

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.
{Project*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

1. PHYSICAL TESTS ON KERB STONES :

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic. Compressive Strength fck in N/sqmm	Remarks
1	001	3.35	22.95	22.83	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.29	22.10		
3	003	3.39	23.45		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	4.49	4.49
2	002	4.38	
3	003	4.61	

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NC/QC/YD/2020-21/YSD-4P-K3

Date: 08-07-2020

TEST REPORT

Sub: Testing of Pre-cast Material-Kerb Stones.
{Project*: Improvements and developments of roads and drains at Yelahanka 4th phase and construction of providing parking lot at 16th A main, A sector, 16th B in Yelahanka Satellite Town sub division (Package-05).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: B B Umesh, M/s SMLP Asphalts, Bangalore.

1. PHYSICAL TESTS ON KERB STONES :

Sl No.	Identification	Flexural strength, fcr in N/sqmm	Characteristic Compressive Strength, fck in N/sqmm	Avg. Characteristic. Compressive Strength fck in N/sqmm	Remarks
1	001	3.37	23.20	22.15	As per Cl. 6.2.2 of IS 456-2000, fcr=0.7√ fck
2	002	3.24	21.45		
3	003	3.27	21.80		

2. WATER ABSORPTION TEST

Sl No	Identification	Water absorption %	Average value %
1	001	5.05	5.82
2	002	4.74	
3	003	4.69	

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